3D COMMERCIALS – HONEY AND COOKIE ADVERTISEMENTS

Dr. J. Kumar

Assistant Professor, Dept. Of Software Engineering

Periyar Maniammai institute of Science and Technology, Thanjavur

Dr. V. Sathya

Assistant Professor, Dept. Of Software Engineering

Periyar Maniammai institute of Science and Technology, Thanjavur

P.Berlin

Department of Software Engineering

Periyar Maniammai Institute of Science and Technology, Thanjavur

T.Rakeshkumar

Department of Software Engineering

Periyar Maniammai Institute of Science and Technology, Thanjavur

A.Mohamed Shameer

Department of Software Engineering

Periyar Maniammai Institute of Science and Technology, Thanjavur

K.Shriharish

Department of Software Engineering

Periyar Maniammai Institute of Science and Technology, Thanjavur

ABSTRACT:

The objective is to produce a 30-second 3D commercial advertisement for a cookie product that emphasizes the use of natural ingredients like cereals and milk and showcases its chocolate coating. The ad will use visually captivating 3D animation to demonstrate the cookie-making process, emphasizing the high quality of the natural ingredients used. Additionally, the packaging will be presented in an appealing and attention-grabbing way and also the abstract presents a 3D honey ad that showcases the natural sweetness and golden hues of honey. It begins with a bee and zooms in to depict the journey of honey from the beehive to the jar. Through this project, we aim to illustrate the potency of 3D advertisements in creating impactful marketing campaigns that distinguish a product from its rivals.

HISTORY OF 3D COMMERCIALS:

The history of 3D commercials can be traced back several decades, with the technology and techniques evolving over time. Here's a brief overview of the key milestones in the history of 3D commercials: Early Experiments (1950s-1960s): The concept of 3D imagery began to gain popularity in the 1950s, and several companies started experimenting with 3D technologies for advertising. Some of the earliest 3D commercials utilized anaglyphic 3D, which required viewers to wear red and cyan glasses to perceive the stereoscopic effect. Revival in the 2000s: While 3D films and entertainment experienced a resurgence in the early 2000s, 3D commercials also saw a revival during this period. Advances in technology allowed for more sophisticated and visually appealing 3D effects. Big-Screen Promotion (2009-2011): Around 2009, major companies like Samsung, LG, and Sony began producing 3D commercials to promote their new line of 3D televisions. These advertisements were often shown in cinemas before movies, taking advantage of the large screen and immersive experience to captivate audiences. Super Bowl Commercials: The Super Bowl, one of the most-watched television events in the United States, has been a platform for showcasing innovative and high-budget commercials. In recent years, several companies have aired 3D commercials during the Super Bowl to create a memorable and immersive advertising experience. Online and Digital Platforms: As digital platforms and online advertising became more prominent, 3D commercials started to find their way onto websites, social media, and streaming platforms. Advertisers began utilizing 3D graphics and animation to create engaging and interactive ads that stood out in the digital landscape. Virtual Reality (VR) and Augmented Reality (AR): With the rise of VR and AR technologies, 3D commercials have expanded into these immersive platforms. Brands have started experimenting with VR and AR advertisements, allowing consumers to experience products and services in a more interactive and realistic way. It's important to note that the popularity of 3D

commercials has fluctuated over time, depending on factors such as technological advancements, audience preferences, and market trends. While 3D commercials have certainly made an impact in the advertising industry, their usage and prominence may vary in different eras and regions.

EXISTING AND PROPOSED SYSTEM:

Typically, advertisements utilize live filming with standard cameras to produce visually appealing ads. However, in this case, we have exclusively employed 3D animation for the advertisement. To enhance the authenticity of the video, we have incorporated an effect called "bitfrost liquid" to create a visually captivating advertisement. This approach is intended to make the ad stand out and capture the viewer's attention.

MODULE DESCRIPTION:

The production pipeline can be broken down into three primary stages

I. Pre-Production Process:
- Concept
- Script
- Storyboard

II. Production process:
- 3D modeling
- Texturing
- Lighting
- Animation
- Camera Setting
- Rendering

III. Post-production process:
- Music
- Editing and Final Output

Concept and storyboard:

Storyboard is a blueprint for the production process.

In this project storyboard rough sketch of the story, it has the information of the where the story happening, the formation and packaging of cookies. how to reveal the product and marketing, and it has key elements of the advertisement.

3D Modelling:

- 3D modelling is not like 2D art or drawing. It is process of modifying vertex, edges and faces
- Modelling using basic primitive's polygons such as basic cylinder polygon

Texturing:

Texturing is an essential aspect of creating realistic and visually appealing 3D models in Maya. Here are the general steps for texturing in Maya: UV mapping: Before applying textures to a 3D model in Maya, it is important to create UV maps. UV maps are 2D representations of a 3D model's surface that define how textures will be applied. Maya provides several tools for UV mapping, including automatic mapping, projection mapping, and manual mapping. Texture creation: Once the UV maps have been created, textures can be applied to the 3D model. Maya supports a wide variety of texture types, including image textures, procedural textures, and vector textures. Textures can be created in Maya's built-in texture editor or imported from external image editors. Texture assignment: In Maya, textures are assigned to a 3D model through the use of materials. Materials define the surface properties of a 3D model, including color, reflectivity, and transparency. To assign textures to a material, the texture file is loaded into Maya's Hypershade editor, and then connected to the appropriate material nodes. Texture editing: Once textures are applied to a 3D model, they can be edited in Maya's UV texture editor. The UV texture editor allows artists to adjust the positioning, scaling, and rotation of textures to achieve the desired look. Rendering: Finally, the textured 3D model can be rendered in Maya's viewport or exported to a rendering software. Maya supports several rendering engines, including Arnold, Mental Ray, and V-Ray. Overall, texturing in Maya requires a combination of technical skill and artistic vision to create realistic and visually appealing 3D models.

Animation:

- 3D Animation is known as moving the object in 3D work space.
- For thus project animation is done by key Frames. It is more straight forward.
- First set start and end keyframe at frame 1 by pressing S then move the frame slider to frame 60 then select the object move where the cookie wants to go again set the Keyframe at 60 by pressing S
- Play the animation to see preview the animation
- Adjust the Keyframe if it necessary

- Now add in-between frames

Lighting:

- Lighting is very important in 3D rendering or the scene will be dark

- In this project I have used only skydome light

- Skydome light is a sphere it creates a world it represents the sky or High dynamic range (HDR) image is used it will create environment lighting based on image.

Camera Angles and Techniques:

Camera angle decide the cinematography is good or bad. Camera shouldn't be static it will kill the story.

In this project there are three different renderable cameras are used each camera has it unique uses.

- Camera one is used for the zoom out and zoom in,

- Camera two is for zoom out from the object,

- Camera three is for the panning movement.

Rendering:

Rendering is the final stage of Production process. It's a time-consuming process in 3D animation.

Render Settings

Render using: Arnold Renderer,

Image Format: JPEG,

Resolution: HD 720 (1280 x 720),

PPI: 72 pixels per inch,

Aspect Ratio: 16:9,

Total Number of Render Camera: Three Camera,

Render Device: CPU.

Arnold Renderer Settings

Camera (AA): 3,

Diffuse: 2,

Specular: 2,

Transmission: 2,

SSS: 2,

Volume Indirect: 2.

Rendering lot of time depend on the work based on the project

Time took to render: More than 400Houres of render,

Total Frames rendered: 900 Frames.

Compositing and Special FX:

- After rendering now need to composite the image in to sequence.
- Open file then import image by locating the rendered images select the first image then enable the image sequence to import the images in order.
- Then composite the video for editing.

Music:

- Music gives extra attention to the story. It's time for adding Music and SFX:
- Adding background music of the advertisement which will engage the audience

Editing and Final Output:

- Final stage is editing the footage of cookie advertisement.
- Edit the image that composite and edit it to sink to the music
- In-between cuts add different transition like dip to black, jump cut

Adobe Media Encoder:

- Media Encoder is used of rendering the final out of Adobe Premiere Pro.
- Set video format to H.264.
- Video quality to Match Source – Adaptive High Bitrate.
- Set frame pre second to 24 Frame Pre-Second.
- Set the File output Location.
- Renderer: Mercury Playback Engine GPU Acceleration (CUDA).
- Press the play button to start the render. It will take some time to render.
- After that the final output is ready to play.

OUTPUT OF LIKBEE AD:

OUTPUT OF CHOCO CEREAL BITES AD:
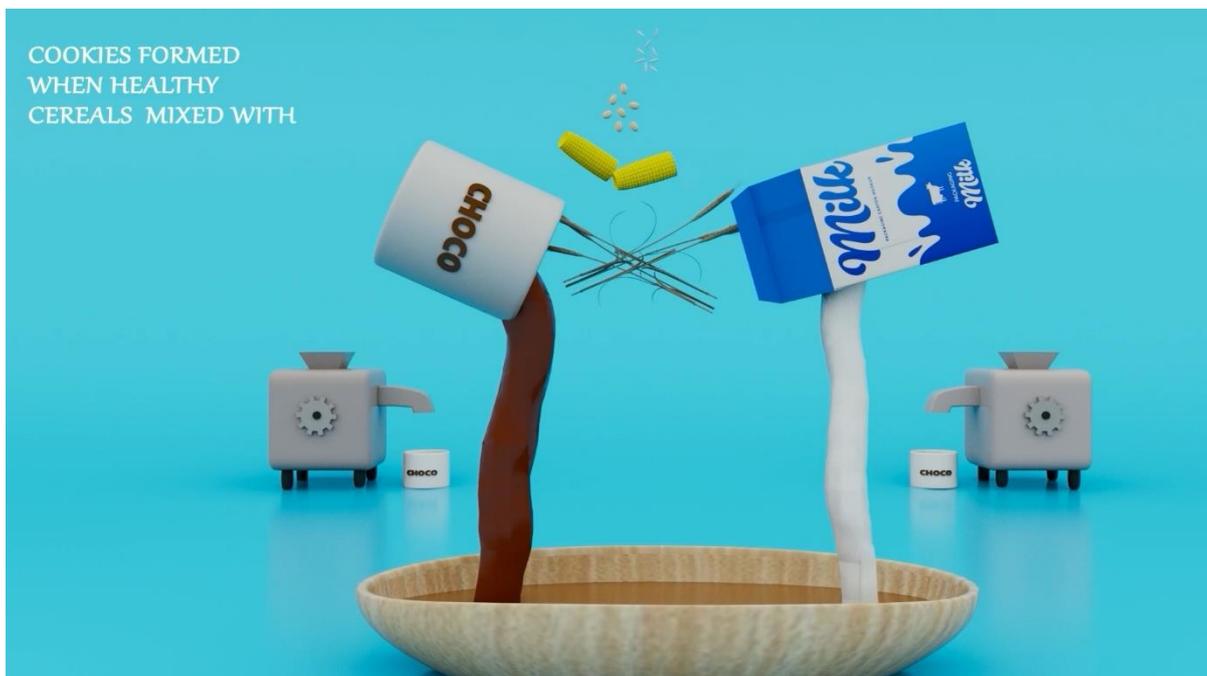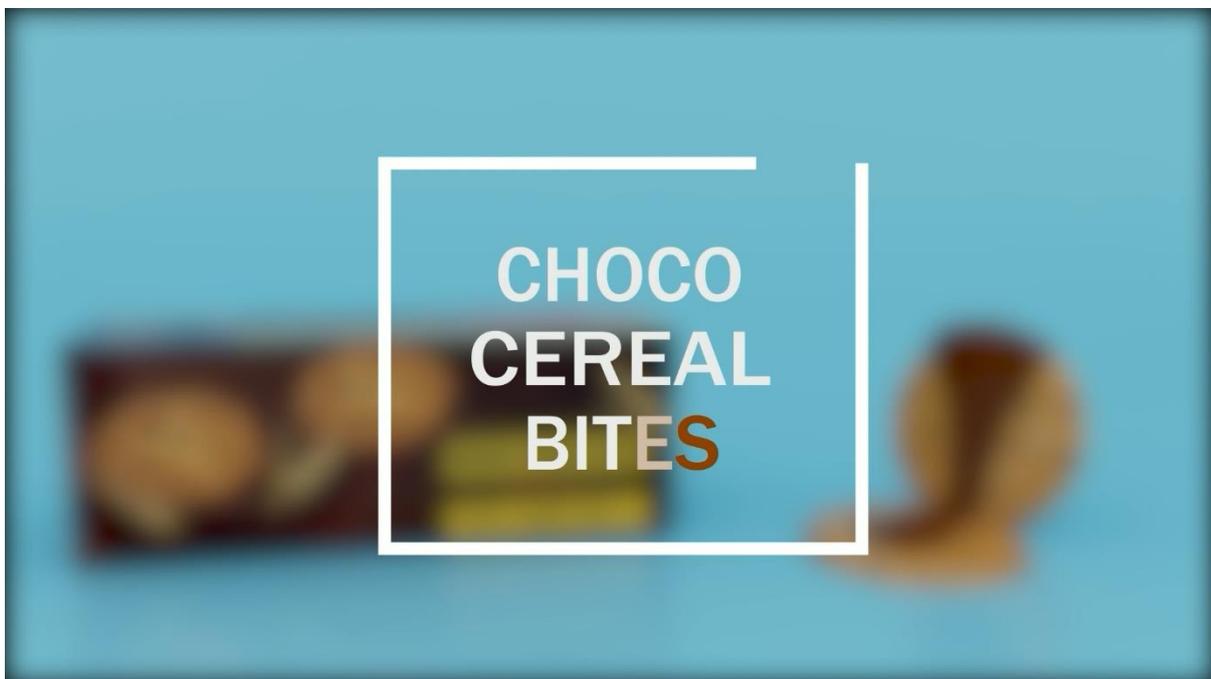
CONCLUSION:

In conclusion, making 3D advertisements can be a great way to attract and engage audiences in the modern era of marketing. By utilizing 3D graphics and animation, businesses can create visually stunning and memorable ads that stand out from traditional 2D ads. However, creating 3D advertisements requires specialized skills and tools, and may require outsourcing to a professional 3D artist or agency. Ultimately, businesses should consider their target audience, message, and budget when deciding whether to invest in 3D advertisements as part of their marketing strategy and hence we have successfully created a 3D advertisement for **Likbee,** a honey product and **choco cereal bites** , a cookie product.

Reference List:

1. https://www.cyberclick.net/numericalblogen/3d-advertising-what-it-is-and-how-it-impacts-marketing
2. https://www.threekit.com/blog/3d-and-ar-are-the-future-of-display-advertising
3. https://martechseries.com/mts-insights/staff-writers/3d-advertising-top-trends-and-benefits/
4. https://lesley.edu/article/the-12-principles-of-animation
5. https://economictimes.indiatimes.com/industry/services/advertising/print-advertising-for-honey-jumps-64-per-cent-post-cse-report/articleshow/79779469.cms
6. https://www.youtube.com/watch?v=2Jf9SzlsEfg&pp=ygUUY29va2llIGFkdmVydGlzZW1lbnQ%3D
7. https://www.youtube.com/watch?v=hWVJucr3Il8&pp=ygUUY29va2llIGFkdmVydGlzZW1lbnQ%3D
8. https://www.youtube.com/watch?v=cmn09NiwwbU&pp=ygUUY29va2llIGFkdmVydGlzZW1lbnQ%3D
9. https://www.youtube.com/watch?v=ezilANc80No&pp=ygUMYmlmcm9zdCBtYXJlh